

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-088780

(43)Date of publication of application : 30.03.1999

(51)Int.Cl. H04N 5/335
G03B 21/40
H04N 5/217
H04N 5/235

(21)Application number : 09-240529

(71)Applicant : HITACHI LTD
HITACHI MICROCOMPUT SYST LTD
HITACHI DEVICE ENG CO LTD
(72)Inventor : MATSUMOTO HIROYUKI
TAKAHASHI TAKASHI
OTAKA TERUAKI

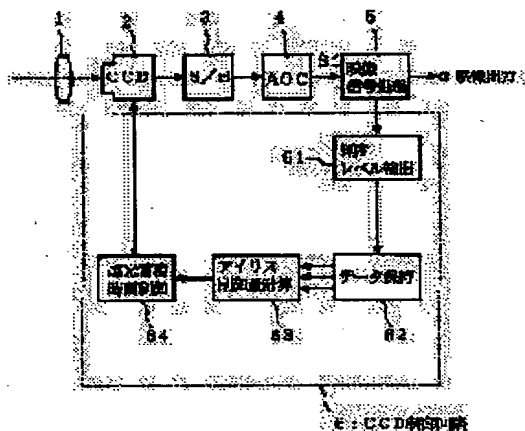
(22)Date of filing : 05.09.1997

(54) IMAGE PICKUP DEVICE

(57)Abstract:

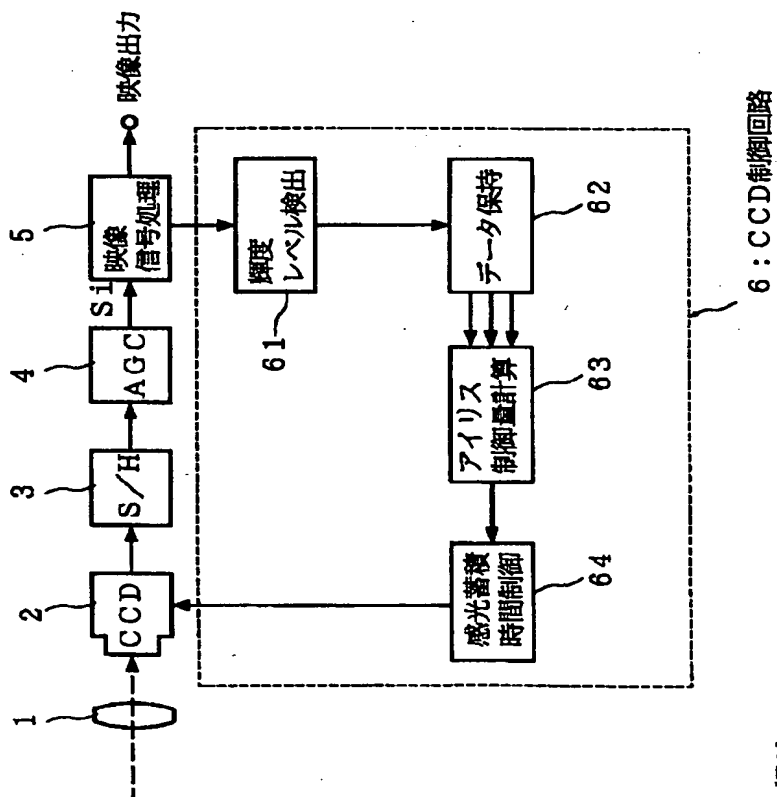
PROBLEM TO BE SOLVED: To effectively suppress flicker without image quality deterioration due to deteriorated S/N of an image pickup signal or missing of video information by detecting a luminance level of an image pickup signal from the CCD for each field and applying feedback control to a photosensing storage time of the CCD of each field so as to minimize a luminance level difference between pluralities of consecutive fields.

SOLUTION: A CCD control circuit 6 uses a luminance level detection section 61 to detect a luminance level for each field of an image pickup signal S_i from a video signal processing circuit 5 and a data latch section 62 latches a detected luminance level by three newest fields at all times. Then an iris control variable arithmetic section 63 calculates an iris control variable minimizing a luminance level difference among the three consecutive fields and a photosensing storage time control section 64 controls the photosensing storage time of the CCD 2 to control variably light receiving sensitivity of the CCD 2. Thus, luminance level fluctuation due to flicker is effectively suppressed by the control of the image pickup sensitivity of the CCD 2.

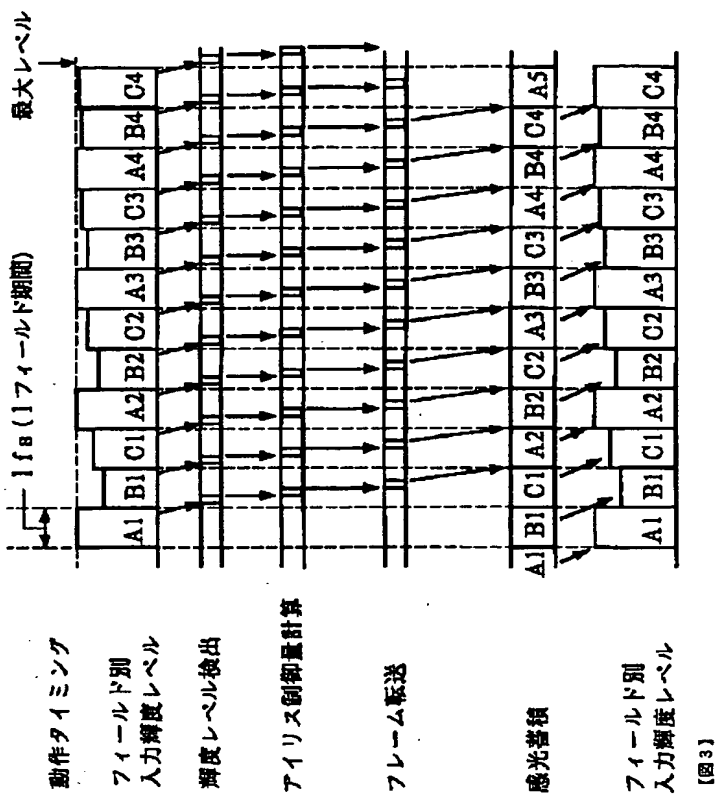


LEGAL STATUS

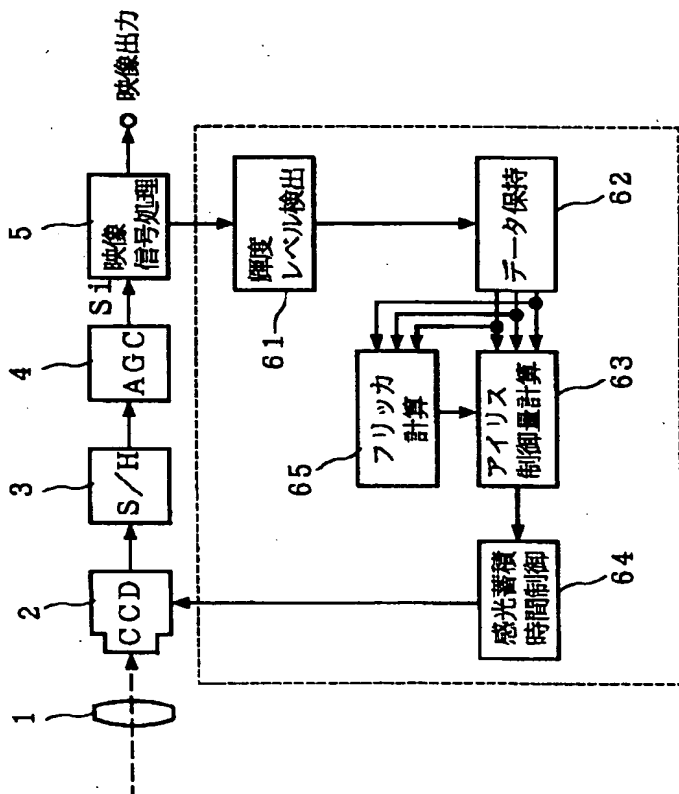
BEST AVAILABLE COPY



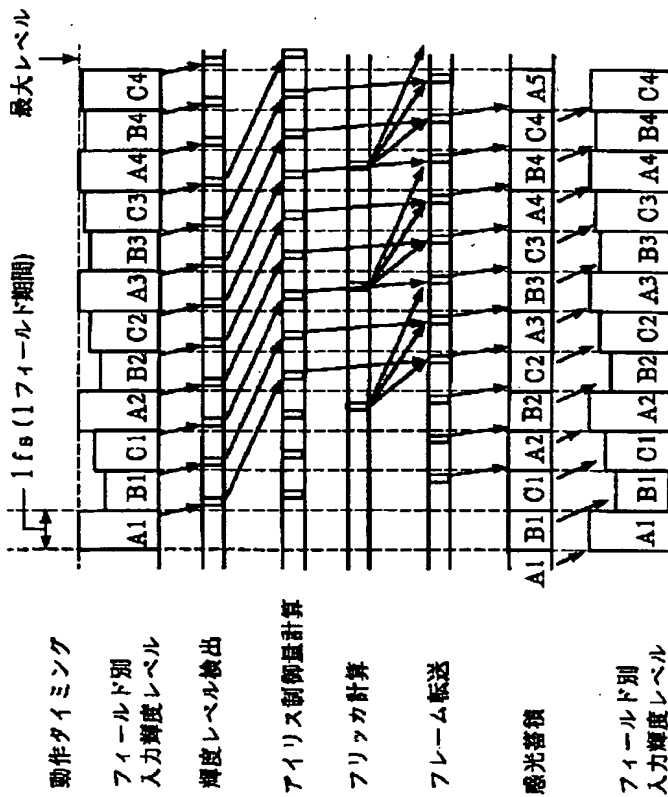
【図2】



【図3】



6: CCD制御回路



フロントページの続き

(72) 発明者 松本 宏之
東京都小平市上水本町5丁目22番1号 株
式会社日立マイコンシステム内
高橋 隆
(72) 発明者 東京都小平市上水本町5丁目22番1号 株
式会社日立マイコンシステム内
尾高 昭明
(72) 発明者 千葉県流山市早野3681番地 日立デバイス
エンジニアリング株式会社内

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☒ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.